Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_

201 Chapter 7 Test Review

Solve for x, y, or z. Show work. Figures are not drawn to scale.

For #s 1-17, use **exact answers** only. No decimals.

Use geometric mean for #s 1 and 2.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



3. \_\_\_\_\_\_\_\_\_ 4. \_\_\_\_\_\_\_\_\_ 5. \_\_\_\_\_\_\_\_\_\_\_



6. \_\_\_\_\_\_\_\_ 7. \_\_\_\_\_\_\_\_ 8. \_\_\_\_\_\_\_\_\_ 9. \_\_\_\_\_\_\_\_\_



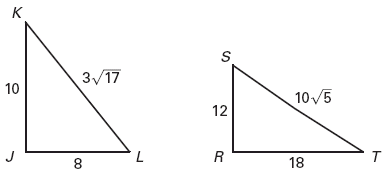
10. AB = \_\_\_\_\_\_\_ 11. AB = \_\_\_\_\_\_\_

CD = \_\_\_\_\_\_\_ BD = \_\_\_\_\_\_\_

 BD = AC = 10

12. Classify the triangle acute, right, or obtuse.

a. \_\_\_\_\_\_\_\_\_\_\_\_\_3, 7, 9 b.\_\_\_\_\_\_\_\_\_\_\_\_\_A(0, 4) B (1, 1) C(3, 6)

**In Exercises 13 and 14, completethe statement with <, >, or =, if possible. If it is not possible, *explain* why.**

1. *m*∠*J* \_\_?\_\_ *m*∠*R*
2. *m*∠*K* + *m*∠*L* \_\_?\_\_ *m*∠*S* + *m*∠*T*

**The sides and classification of a triangle are given below. The length of the longest side is the integer given. What value(s) of *x* make the triangle?(Note: you may need to use quad. Form.)**

**x, x-3, 11; obtuse**

16. What is the perimeter of an equilateral triangle with a height of 15? (Draw a picture.)

17. What is the height of an equilateral triangle with one side equal to 18?



18. Given the regular hexagon, find UL. DU = 7.

m∠B = 120°



For #s 19-24, round to the nearest tenth.

19. Find the perimeter of the trapezoid to the right.





20. \_\_\_\_\_\_\_\_\_ 21. \_\_\_\_\_\_\_\_\_\_ 22. \_\_\_\_\_\_\_\_\_\_\_

23.\_\_\_\_\_\_\_\_\_A 15ft ladder is place against a building. It needs to reach a height of 9ft. At what angle should it be placed with the ground?

24.\_\_\_\_\_\_\_\_\_A lighthouse watchman observes two sailboats east of the lighthouse. The angles of depression to the two boats are 34° and 55°. The height of the lighthouse is 90ft. What is the distance between the boats?